

# Mineral Industry Surveys

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## IRON ORE IN JANUARY 2006

U.S. mine production of iron ore in January 2006, on a daily average basis, was 5% greater than that of the prior month, according to the U.S. Geological Survey. Average daily production, 148,000 metric tons per day (t/d), was 7,000 t/d greater than the figure for December 2005.

Shipments in January 2006, on an average daily basis, were 26% less than those of December 2005, owing to the annual winter interruption of shipping. Mine stocks at the end of January were 1.0 million metric tons (Mt) greater than those on December 31, a 17% increase.

U.S. imports of iron ore in December 2005 were 148% greater than exports, with imports exceeding exports by 734,000 metric tons.

**Price Update.**—Baosteel Group Inc. led 16 of China's leading steelmakers in annual negotiations with major iron ore suppliers—BHP Billiton Limited (BHPB), Companhia Vale do Rio Doce (CVRD), and Rio Tinto plc (Bloomberg, 2006§<sup>1</sup>). The Australian Bureau of Agriculture and Resource Economics (ABARE), an Australian federal government entity, projected a 12% increase in iron ore prices, while ABARE's Chinese counterpart predicted prices would remain the same or drop (Chambers, 2006§). Although China's Commerce Ministry warned that measures might be taken if prices were deemed excessive, the head of the National Development and Reform Commission indicated that market and enterprise negotiations would decide the contract price (Blumenstein, 2006).

**Exploration and Development.**—Cardero Resources Corp. (Vancouver, British Columbia, Canada) announced that initial surface magnetite sampling of the Pampa El Toro area in Peru has tentatively defined an aggregate area of approximately 15 square kilometers containing at least 5% magnetic minerals by weight in sand. Cardero's short-term strategy is to identify sufficient resources for a 20- to 30-year mining operation (Cardero Resources Corp., 2006§).

**World Production Update.**—Kudremukh Iron Ore Company Limited (KIOCL), an Indian government-owned enterprise and 1 of the world's 15 leading iron ore miners, ceased mining at its Kudremukh leasehold. KIOCL, which exports 100% of its iron ore, was first granted a mining lease in the Western Ghats area of Karnataka State in 1969. In 1987, the mine was designated part of the Kudremukh National Forest, and in 2002, KIOCL was informed that mine production would have to stop by 2005 (Rosenquist, 2006).

**Domestic Production Update.**—Palladon Ventures Ltd. (See Iron Ore in July 2005.) announced agreement on project financing terms for a 2 million-metric-ton-per-year iron ore facility near Cedar City, UT. Palladon's 50% joint venture partner, Luxor Capital Partners, LP, agreed to provide equity funding for the first \$2 million of project construction (Palladon Ventures Ltd., 2006§).

**Transportation.**—Shipments of iron ore, the largest single commodity by weight moved in U.S.-flag vessels on the Great Lakes for 2005, totaled 39.8 Mt, 9% below the figure for 2004. This was a 6% decrease from average annual figures for the 2000-04 period (Lake Carriers' Association, 2006).

## References Cited

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## Internet References Cited

- Bloomberg, 2006, (January 12), China Steel Association, 16 steelmakers meet for iron ore talks, accessed January 12, 2006, via <http://www.bloomberg.com>.  
Chambers, Matt, 2006 (February 28), Abare forecasts iron ore prices to gain 12%, accessed February 28, 2006, via URL <http://www.au.biz.yahoo.com>.  
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Palladon Ventures Ltd., 2006 (February 6), Palladon announces iron project financing, accessed February 14, 2006, via URL <http://www.palladonmining.com>.

<sup>1</sup>References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1  
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE<sup>1,2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2005:				
January	4,420	4,420	3,350	3,350
February	3,870	8,290	1,150	4,500
March	4,240	12,500	2,610	7,110
April	4,220	16,800	4,940	12,100
May	5,250	22,000	5,210	17,300
June	4,480	26,500	4,840	22,100
July	5,160	31,600	5,110	27,200
August	4,840	36,500	5,020	32,200
September	4,460	40,900	5,150	37,400
October	4,480	45,400	5,190	42,600
November	4,740	50,200	4,330	46,900
December	4,380	54,500	4,880	51,800
2006:				
January	4,600	4,600	3,600	3,600

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Excludes byproduct ores.

TABLE 2  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN JANUARY<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2006	2005	2006	2005	2006	2005
Michigan	1,020	1,030	1,020	1,070	1,670	1,420
Minnesota	3,580	3,390	2,570	2,280	5,080	2,640
Total	4,600	4,420	3,600	3,350	6,750	4,060

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Excludes byproduct ore.

<sup>3</sup>Includes rail and vessel.

<sup>4</sup>Includes mines, concentrators, pelletizing plants, and loading docks.

TABLE 3  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2004:				
December	1,710 <sup>r</sup>	944	9	2,660 <sup>r</sup>
Year total	15,300 <sup>r</sup>	13,200	84 <sup>r</sup>	28,600 <sup>r</sup>
2005:				
January	1,210	1,070	8	2,280
February	928	748	8	1,680
March	1,160	873	10	2,040
April	1,690	967	7	2,660
May	1,940	588	10	2,540
June	1,620	399	8	2,030
July	1,500	1,050	7	2,550
August	1,430	708	10	2,150
September	1,800	1,160	9	2,960
October	2,000 <sup>r</sup>	927	10	2,930 <sup>r</sup>
November	1,920 <sup>r</sup>	1,320	10	3,250 <sup>r</sup>
December	1,420	1,130	9	2,560
Year total	18,600	10,900	106	29,600

<sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes production from steel plant waste oxides.

Source: Natural Resources Canada.

TABLE 4  
PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF FURNACE<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace <sup>2</sup>		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2004:						
December <sup>3</sup>	4,270	42,300	3,810	47,700	4,390	52,000
2005:						
January	3,420	3,420	3,890	3,890	4,390	4,390
February	3,260	6,680	3,710	7,590	3,930	8,320
March	3,660	10,300	4,040	11,600	4,150	12,500
April	3,080	13,400	3,500	15,100	4,440	16,900
May	3,080	16,500	3,430	18,600	4,320	21,200
June	2,690	19,200	3,000	21,600	4,110	25,300
July	2,630	21,800	2,920	24,500	4,210	29,500
August	2,890	24,700	3,180	27,700	4,370	33,900
September	2,840	27,500	3,330	31,000	4,440	38,400
October	2,940	30,500	3,470	34,500	4,810	43,200
November	3,000	33,500	3,170	37,700	4,660	47,800
December	2,840	36,300	3,380	41,000	4,420	52,300

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

<sup>3</sup>December year-to-date figures revised based on the American Iron and Steel Institute annual publication.

Source: American Iron and Steel Institute.

TABLE 5  
U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE<sup>1,2</sup>

(Thousand metric tons)

Country of destination and type of product	2005						
	2004	1st quarter	2nd quarter	3rd quarter	November	December	Total
Canada	7,830	1,280	4,300	3,010	888	494	11,200
China	297	--	1	196	--	(3)	282
Mexico	4	1	1	1	26	(3)	30
Slovakia	187	--	26	210	--	--	237
Trinidad and Tobago	29	--	(3)	--	--	--	(3)
United Kingdom	(3)	--	--	--	78	--	78
Other	53	(3)	4	1	1	1	8
Total	8,400	1,280	4,330	3,420	993	495	11,800
Pellets	8,100	1,280	4,320	3,360	911	491	11,600
Concentrates	25	2	4	3	78	1	89
Direct shipping ores	264	(3)	4	52	2	1	60
Other	6	2	1	2	2	2	11
Total	8,400	1,280	4,330	3,420	993	495	11,800

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	2005					2004
	December		Year to date			January-December
	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)	Thousand metric tons
Australia	--	--	1	11	18.00	(4)
Bahamas, The <sup>5</sup>	--	--	140	4,850	34.70	--
Brazil	375	18,700	4,180	178,000	42.65	5,020
Canada	824	44,300	7,510	299,000	39.88	5,830
Chile	--	--	270	10,700	39.56	244
China	--	--	(4)	2	263.13	--
Finland	--	--	9	383	41.03	76
Greece	26	470	49	963	19.69	--
Italy	--	--	(4)	15	48.00	(4)
Mexico	1	25	41	1,600	39.32	49
Norway	3	102	6	198	35.14	4
Paraguay	--	--	4	68	16.80	1
Peru	--	--	33	1,060	32.48	56
Russia	--	--	99	8,550	86.00 <sup>5</sup>	--
South Africa	--	--	--	--	--	104
Spain	--	--	1	25	18.00	(4)
Sweden	--	--	133	6,710	50.42	111
Trinidad and Tobago	--	--	375	11,000	29.45	--
Uruguay	--	--	--	--	--	(4)
Venezuela	--	--	148	7,890	53.43	262
Total	1,230	63,600	13,000	532,000	40.92	11,800
Concentrates	72	2,470	1,250	36,400	29.06	1,060
Coarse ores	--	--	56	2,030	36.37	68
Fine ores	492	25,400	4,880	153,000	31.36	3,230
Pellets	665	35,600	6,730	337,000	50.12 <sup>5</sup>	7,270
Briquettes	--	--	--	--	--	56
Other agglomerates	1	25	74	2,820	38.24	75
Roasted pyrites	--	--	8	335	39.61	9
Total	1,230	63,600	13,000	532,000	40.92	11,800

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Customs value. Excludes international freight and insurance charges.

<sup>4</sup>Less than ½ unit.

<sup>5</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN DECEMBER 2005<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Brazil	72	--	125	178	--	--	375
Canada	--	--	338	487	--	--	824
Greece	--	--	26	--	--	--	26
Mexico	--	--	--	--	1	--	1
Norway	--	--	3	--	--	--	3
Total	72	--	492	665	1	--	1,230

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2005					2004
	December		Year to date			January-December
	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)	Thousand metric tons
Brazil	178	11,700	1,900	106,000	55.96	2,720
Canada	487	24,000	4,730	223,000	47.02	4,480
Finland	--	--	--	--	--	65
Russia	--	--	99	8,550	86.00 <sup>3</sup>	--
Total	665	35,600	6,730	337,000	50.12	7,270

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value. Excludes international freight and insurance charges.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 9  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,  
BY CUSTOMS DISTRICT<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	December	January-December	
	2005	2005	2004
Baltimore, MD (13)	287	3,440	3,580
Boston, MA (04)	--	--	(3)
Buffalo, NY (09)	--	6	9
Charleston, SC (16)	--	2	1
Chicago, IL (39)	79	1,400	1,450
Cleveland, OH (41)	322	3,080	2,440
Detroit, MI (38)	23	258	174
Great Falls, MT (33)	--	(3)	(3)
Houston-Galveston, TX (53)	32	78	57
Laredo, TX (23)	--	--	8
Los Angeles, CA (27)	--	(3)	--
Miami, FL (52)	--	--	(3)
Mobile, AL (19)	3	66	84
New Orleans, LA (20)	483	4,610 <sup>4</sup>	3,900
New York City, NY (10)	--	1	--
Nogales, AZ (26)	1	18	(3)
Ogdensburg, NY (07)	--	(3)	--
Philadelphia, PA (11)	--	22	58
San Francisco, CA (28)	--	4	1
San Juan, PR (49)	--	6	--
Total	1,230	13,000	11,800

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,  
BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	December	January-December	
	2005	2005	2004
Baltimore, MD (13)	141	1,440	1,450
Chicago, IL (39)	--	53	232
Cleveland, OH (41)	322	3,080	2,400
Detroit, MI (38)	23	258	174
Houston-Galveston, TX (53)	32	68	52
Laredo, TX (23)	--	--	8
Mobile, AL (19)	--	61	--
New Orleans, LA (20)	146	1,770	2,950
Total	665	6,730	7,270

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.